

Akelle. These strive to replace the Mpungwe. To the north, towards the Mundah River, the Osekiani, the Mbenga and Mbuschu tribes are met with, which occupy the whole area of the Bay of Corisco. All these tribes speak different languages and differ in their manners and customs.

The colony of Gaboon consists of three little villages inhabited by Europeans—Plateau, Glass, and Baraka (or Libreville). They are situated about a mile from one another. The French Government house, offices, and barracks, as well as the Catholic Mission house and four or five factories are at Plateau; eight or ten English and German factories are at Glass, and the Anglican Mission house is at Baraka. Each factory forms a complex of houses by itself, all comprised in an inclosure; there is generally the dwelling-house of the colonist, the sale rooms or shops, a store-house, a kitchen (always built separately), a house for the workmen, and a shed for canoes and boats. The houses are built of wooden planks imported from Europe, and all have a verandah. The roofs are covered with mats, which are impenetrable even to the most violent rain. The only house built of stone is the Government house.

Dr. Lenz now gives minute details on the political condition of the colony as well as of the work and progress of the religious missions, and concludes his sketch by an elaborate account of the commerce of the place.

In the above we have given but a scanty outline of Dr. Lenz's sketch of Gaboon. Our readers may judge of the interest of the whole work when we state that there are thirteen other chapters equally elaborate and crowded with details. Our space will not permit us to enter further upon the subject, and we must confine ourselves to the mere statement of the contents of the other chapters. Thus we have one on the Cape Lopez colony, then the Ininga, the Fan, and the Abongo tribes, are treated in turn, the Fan being remarkable through their being cannibals and the Abongo through their extraordinarily small size, which entitles them to the appellation of a "tribe of dwarfs." A general description of the commercial conditions of West Africa follows, and we then come to some animated pictures of elephant and other hunting. The next chapters treat of the superstitious beliefs of the various tribes, of the free state of Liberia and the Croo Coast. A journey from the Okande land to the Osaka tribe and thence to the Aduma and the Banskaka is described in the three following sketches, and the two last ones are dedicated to a description of the Ogowe Lakes and the town of St. Paul de Loanda. We can recommend Dr. Lenz's book most heartily to all lovers of geographical and ethnographical science who are familiar with the German language.

LETTERS TO THE EDITOR

[The Editor does not hold himself responsible for opinions expressed by his correspondents. Neither can he undertake to return, or to correspond with the writers of, rejected manuscripts. No notice is taken of anonymous communications.]

[The Editor urgently requests correspondents to keep their letters as short as possible. The pressure on his space is so great that it is impossible otherwise to ensure the appearance even of communications containing interesting and novel facts.]

The Average Flush of Excitement

I WITNESSED a curious instance of this on a large scale, which others may look out for on similar occasions. It was at Epsom,

on the Derby Day last week. I had taken my position not far from the starting-point, on the further side of the course, and facing the stands, which were about half a mile off, and showed a broad area of white faces. In the idle moments preceding the start I happened to scrutinise the general effect of this sheet of faces, both with the naked eye and through the opera-glass, thinking what a capital idea it afforded of the average tint of the complexion of the British upper classes. Then the start took place; the magnificent group of horses thundered past in their fresh vigour and were soon out of sight, and there was nothing particular for me to see or do until they reappeared in the distance in front of the stands. So I again looked at the distant sheet of faces, and to my surprise found it was changed in appearance, being uniformly suffused with a strong pink tint, just as though a sun-set glow had fallen upon it. The faces being closely packed together and distant, each of them formed a mere point in the general effect. Consequently that effect was an averaged one, and owing to the consistency of all average results, it was distributed with remarkable uniformity. It faded away steadily but slowly after the race was finished. F. G.

Lunar Crater

ON April 1 last I saw, between Landsberg and Rheinhold, a small but very remarkable crater, which does not appear in Schmidt's map. It is situated east of a line joining the centres of the above craters, and at rather more than a third of the distance from the former to the latter. Either closely adjoining, or in the position of the small crater, there is an isolated hill within the angle of a forked ridge as shown by Schmidt, who must, undoubtedly, have noticed the crater if it existed at the time of his observation. Might it be that the hill seen by him subsequently opened out as a crater? I remarked neither the hill nor the ridge, but these, like many of Schmidt's objects, might be above my telescopic power, so I cannot say whether the crater is identical with the hill or not. Nearer Rheinhold there is a smaller crater not in Schmidt, who, however, shows a similar one that I failed to see not far off to the south. This may be only a case of misplacement in the map.

JOHN BIRMINGHAM

A Remarkable Meteor

A REMARKABLE meteor was seen in Western Australia on February 1 this year. The following account has been forwarded to me by Mr. S. Worsley Clifton, Collector of Customs at Freemantle:—

"A small black cloud on a clear day appeared in the east, travelling not very swiftly toward the north-west, which burst into a ball of fire with an apparent disk the size of the full moon, blood-red in colour; it left a train of black or dark-coloured vapour across the heavens which was visible for three-quarters of an hour. No sound was heard, sky perfectly clear, and thermometer 100° F. in the shade."

ROBT. J. ELLERY

Observatory, Melbourne, April 16

Disease in Salmon

THERE has lately been much correspondence upon the subject of a disease affecting the scales of the salmon, and I chanced to come upon the passage which I inclose to you in an old book, the fly-leaf of which bears the autograph of a Duke of Richmond, the one, I imagine, who was at Brussels in 1815. I am not a scientific naturalist, and it is quite possible that this passage is familiar to those who are conversant with such subjects; but thinking it better to err on the side of superfluity than that of carelessness, I trouble you with it.

W. WALKER

May 26

Extract from Rev. C. Cordiner's *Letters to Thos. Pennant, Esq., on Antiquities and Scenery of the North of Scotland*. Lond. 4to, 1780.

I here beg leave to introduce a memoir, relative to an insect attendant on the salmon which come up this river (the Devron), communicated to me by an ingenious friend.

The foul salmon, of which a drawing has been already sent to Mr. Pennant, was caught February 10, 1776. When brought into the house the colours upon this fish were remarkably lively. The general appearance was that of a reddish brown; but the

spots of red and black upon particular parts, were exceedingly bright and beautiful. When one compared the whole appearance to that of a clean fish, it was wretched and disagreeable; it was lank; the belly empty, flabby, and of a dirty yellow; the jaws at a considerable distance in the middle, the under jaw with a large protuberance standing perpendicular upon the extremity; the upper jaw with a hole almost quite through (and I am told in some quite through), in which, when the jaws were shut, the protuberance lodged. Not one fin entire; the scales and skin being in many places destroyed, presented the appearance of foul ulcers. The gills were full of the *Lernæa salmoneæ*; such salmon are called *Kipper*, or foul fish.

The cruves in the river Devron are (following the windings of the river), about a mile and a half from the sea. In the sandy places below the cruves, where there is a sufficient depth of water, a great many salmon spawn. In those places they are seen raising considerable hills of sand, probably to cover and protect the spawn.¹ They are likewise seen frequently pushing and striking one another; and the fishermen assert that they have many battles: their conjecture is that the battles are occasioned by the males endeavouring to get at the spawn in order to devour it, and the females endeavouring to defend it. About these hills they remain during the winter, and until the young fry appear, unless forced off by a torrent, probably in order to keep the hills in repair and to defend the spawn from the many enemies ready to attack it. *Quære*.—Are not the form of the jaws, the foul ulcers in the skin, and the destruction of the fins owing to the above-mentioned operations? *Quære*.—If salmon spawned in the sea, would they not be found more or less in the condition of kipper? But in this condition they are never found out of the rivers.

Linnaeus says of the *LERNÆA Salmonea*: "*Habitat in branchiis salmonum; ergo etiam marina*:" this latter is certainly a mistake; for these *Lernæa* are never found with us out of the rivers; and several sensible fishermen have assured me, that salt water proves absolute destruction to these animals.

Salmon, at a certain time during their stay in the sea, are infested by another animal of that genus, called by Linnaeus *MONOCULUS*, which is as really a marine, as the other is a fresh-water animal. This species seems to me to be undescribed by authors and very distinct from the *M. piscinus* of Linnaeus, which it in some measure resembles. In a few hours after a salmon has entered the river, not one of these *MONOCULI* are to be found upon it. *Quære*.—Have we not in these *vermes* a provision made by the Author of Nature for forcing the salmon from the sea into our rivers, and from the rivers back again into the sea?

Inherited Memory

YOUR correspondent "A. B." has propounded a theory which would satisfactorily explain a good many facts in natural history which have hitherto been extremely perplexing. I am strongly inclined to believe that in some of our birds, at any rate, the knowledge of localities is inherited. About thirty years ago I lived at a farmhouse, my father's home; the house stood alone in the country; my father also occupied some premises in a village, about half a mile distant. On these premises there was a large, very old dove-cot containing blue rock pigeons.

My brothers and I wished to establish a similar dove-cot at the farm, and prepared a suitable room for the purpose. In the first instance we caught, one winter's night, about fifty of the old rock pigeons; these we confined for five or six weeks, but when liberated they of course flew straight home. We next took a number of fledged young ones out of the nests. These had never been outside the old dove-cot, but when sufficiently strong they all flew away, as the old ones had done.

Discouraged, but still determined to succeed, we next bought a number of tame pigeons, and when they began to sit we put eggs of blue rocks under them, taking their own eggs away. Several were reared; but as soon as they were strong enough to dispense with the care of their foster-mothers, they one after another deserted them and returned to the ancestral dove-cot. A few years after this the premises where the old dove-cot was situated were altered, and the way into the dove-cot quite stopped up. The pigeons were sold and driven away.

For nearly twenty years blue rocks continued to visit the old premises. Some of them built on a ledge in an old gateway, that being the place in which it was possible for them to find nest-room the nearest to the old dove-cot. These occurrences

¹ Br. Zool. iii. 4to ed., p. 252.

seem to point to remembrance of localities in the race as well as in individuals, and "inherited memory" would, I think, best account for *all the facts* of the case.

The Gynsills, Leicester

JAMES ELLIS

A Golden Eagle and a Decoy—Audacity of a Hawk

WHILST staying a few days at Manhattan, a little town in Kansas, I spent some hours in the office of a dentist, Dr. C. Blackley, who is also an ornithologist, having stuffed a goodly number of the birds of the state. He was then occupied with a fine specimen of the common pelican (*Pelicanus communis*) one of a flock of over a thousand that passed over the town in the month of April, some of them alighting in the neighbouring marshes. These birds are not unfrequent visitors to these far inland regions, and I have known them shot and brought to me from the alkali lakes in Colorado, both regions from 600 to 800 miles from the sea. The doctor told me an amusing incident of a day's wild goose shooting in the vicinity. He took with him to one of the ponds frequented by wild geese, a stuffed specimen of the Canada goose, to act as a decoy. Having firmly planted his bird in the sand with its wooden platform well covered over, he lay behind the bushes awaiting a shot. Suddenly there was a rush of wings, and like a flash of lightning a golden eagle swept down on the decoy, knocking the bird over, and tearing out some of the stuffing. The eagle then sat down near his prey, staring with amazement at its remarkably quiescent character, as well as at the strange wooden appendage attached to its claws. Deeming there was something uncanny about such a goose, and there might be danger in the neighbourhood, he prudently flew away. Unfortunately a branch of a tree prevented the sportsman from shooting the marauder.

(I can vouch for the truth of this story; the doctor showed the goose and where it had been struck).

A few days after this, when in the village of Morrison, Colorado, I was struck with the audacity of one of our smallest hawks. I was standing on a lumber pile in the middle of the street, when I heard a scuffling of wings, and a squeaking; the latter proceeded from a small prairie squirrel, about the size of a rat, who was making the best of his way to a hole in the lumber, hotly pursued by a tiny hawk, whose body was no larger than that of his prey. The squirrel just escaped into the hole by the tip of his tail, the hawk unable to stop the impetus of its onset, dashing right against the lumber-pile, within six feet of where I was standing. I jumped down in pursuit, but totally regardless of my presence, the plucky little bird made another swoop at his prey, who had again made a sally from another hole. I knocked the hawk down this time with my hat, and the squirrel escaped under the wood pile. This took place in the centre of a little village street, with bystanders within a few yards of the occurrence.

The hawk resembled the female sparrow-hawk (*Falco sparverius*).

A. LAKIS

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INTELLECT IN BRUTES

NOW that the discussion on this subject in NATURE seems to be running dry, perhaps a few concluding remarks by one who has not hitherto taken any part in it may be admitted.

The discussion was started by Mr. Nicols recording a case of the gnawing of water-pipes by rats. This is not at all an unusual thing for rats to do, and I cannot see that the fact of their doing so, in order to obtain the water, would imply so incredible an amount of sagacity as some of the other writers in NATURE appear to suppose. The water can be heard within the pipe, and if the rats are thirsty, it seems a sufficiently simple device to gnaw the pipe. Of course it may be an open question whether they gnaw the pipe for this purpose, or for the mere sake of gnawing, or for any other purpose; but that a rat should have sufficient intelligence to gnaw through a water-pipe, supposing the animal to require water obtained in this way, I think there can be no doubt.

The discussion was enlivened by Mr. Henslow introducing certain general propositions as to the features wherein animal intelligence differs essentially from human, and it